In the Claims:

Please amend claims 1, 5, 9, 13-16 as follows:

- 1. (Currently amended) A method of rescuing a mammal from a lethal dose of total body irradiation, said method comprising administering <u>isolated</u> marrow stromal cells from an allogenic but otherwise identical donor mammal to an irradiated mammal, thereby rescuing said mammal from a lethal dose of total body irradiation, wherein said isolated marrow stromal cells are administered immediately upon isolation or following a period of *in vitro* culturing.
- 2. (Original) The method of claim 1, wherein said mammal is selected from the group consisting of a rodent, a horse, a cow, a pig, a dog, a cat, a non-human primate, and a human.
 - 3. (Original) The method of claim 2, wherein said mammal is a human.
 - 4. (Original) The method of claim 1, wherein said administration is infusion.
- 5. (Currently amended) A method of enhancing hematopoiesis in a mammal, said method comprising administering <u>isolated</u> marrow stromal cells from an allogenic but otherwise identical donor mammal to a mammal, thereby enhancing hematopoiesis in said mammal, wherein said isolated marrow stromal cells are administered immediately upon isolation or following a period of *in vitro* culturing.
- 6. (Original) The method of claim 5, wherein said mammal is selected from the group consisting of a rodent, a horse, a cow, a pig, a dog, a cat, a non-human primate, and a human.
 - 7. (Original) The method of claim 6, wherein said mammal is a human.

- 8. (Original) The method of claim 5, wherein said administration is infusion.
- 9. (Currently amended) A method of enhancing hematopoietic stem cell differentiation in a mammal given a lethal dose of total body irradiation, said method comprising administering <u>isolated</u> marrow stromal cells from an allogenic but otherwise identical donor mammal to an irradiated mammal, thereby enhancing hematopoietic stem cell differentiation in said mamma, wherein said isolated marrow stromal cells are administered immediately upon <u>isolation or following a period of *in vitro* culturing.</u>
- 10. (Original) The method of claim 9, wherein said mammal is selected from the group consisting of a rodent, a horse, a cow, a pig, a dog, a cat, a non-human primate, and a human.
 - 11. (Original) The method of claim 10, wherein said mammal is a human.
 - 12. (Original) The method of claim 9, wherein said administration is infusion.
- 13. (Currently amended) A method of enhancing the hematopoietic recovery in a mammal given a lethal dose of total body irradiation, said method comprising administering isolated marrow stromal cells from an allogenic but otherwise identical donor mammal to an irradiated mammal, thereby enhancing the hematopoietic recovery in said mammal, wherein said isolated marrow stromal cells are administered immediately upon isolation or following a period of in vitro culturing.
- 14. (Currently amended) A method of treating a mammal comprising an ablated marrow, said method comprising administering <u>isolated</u> marrow stromal cells from an allogenic but otherwise identical donor mammal to a mammal, thereby treating said mammal comprising an ablated marrow, wherein said isolated marrow stromal cells are administered immediately upon isolation or following a period of *in vitro* culturing.

- 15. (Currently amended) A method of enhancing hematopoiesis in a mammal comprising an ablated marrow, said method comprising administering <u>isolated</u> marrow stromal cells from an allogenic <u>but otherwise identical</u> donor mammal to a mammal, thereby enhancing hematopoiesis in said mammal comprising an ablated marrow, <u>wherein said isolated marrow stromal cells are administered immediately upon isolation or following a period of *in vitro* culturing.</u>
 - 16. (Currently amended) A method of increasing survival of a mammal exposed to a lethal dose of total body irradiation, said method comprising administering <u>isolated</u> marrow stromal cells from an allogenic but otherwise identical donor mammal to an irradiated mammal, thereby increasing the survival of a mammal exposed to a lethal dose of total body irradiation, wherein said isolated marrow stromal cells are administered immediately upon isolation or following a period of *in vitro* culturing.